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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,930	08/02/2001	Hiroki Kanai	NITT.0020	4634
38327	7590	12/13/2004	EXAMINER	
REED SMITH LLP 3110 FAIRVIEW PARK DRIVE, SUITE 1400 FALLS CHURCH, VA 22042			CHEUNG, MARY DA ZHI WANG	
			ART UNIT	PAPER NUMBER
			3621	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,930

Applicant(s)

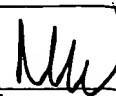
KANAI ET AL.

Examiner

Mary Cheung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. This action is in response to the RCE filed on September 27, 2004. Claims 1-7 are pending. Claims 1-7 are amended. Claims 8-14 are canceled.

Response to Arguments

2. Applicant's arguments filed September 27, 2004 have been fully considered but they are not persuasive.

Applicant argues that the cited prior art fail to teach a rental storage service provider estimates data amount in a rental storage for future storage usage of each of the rental storage users based on the history of storage usage of one individual rental storage user. Examiner respectfully disagrees because Wollrath (U. S. Patent 6,263,350) teaches a rental storage service provider providing storage usages for each of the rental storage users (title and column 12 lines 38-48 and column 12 lines 53-59), and Mummert (U. S. Patent 6,427,152) teaches estimating data amount in each of the storage for future storage usage of each of the users based on the history usages (column 3 lines 26 – column 6 line 4 and Fig. 1). Thus, the combination of Wollrath and Mummert's teaching discloses the claimed limitation for the benefit of accurately projecting the future utilization of the storage and preventing service outages caused by storage filled to capacity.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a user is a person or corporation and the user is not a program) are not recited in

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the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this particular case, the applicant does not disclose an explicit definition to prevent examiner to interpret the word "user" as "a program" or "a client". Thus, Wollrath teaches the concept of "user" or "each of the users" (column 12 lines 38-48).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this particular case, the motivation for combining the teaching of Wollrath and Mummert is clearly stated by Mummert that is to accurately project the future utilization of the storage for preventing service outages caused by storage filled to capacity (column 2 lines 6-11 and column 4 lines 17-21).

Claim Objections

3. Claim 1 is objected to because of the following informalities: in line 2 the word "or" should be "on". Appropriate correction is required.

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by Wollrath et al., U. S. Patent 6,263,350 in view of Mummert et al., U. S. Patent 6,427,152.

As to claim 1, Wollrath teaches a service method of a rental storage, in which rental storage users (*"the client"*) use the rental storage provided by a storage provider (*"the server"*) on a network and each of said rental storage users and said storage provider communicate with respect to the rental storage service, comprising the steps of using storage of said storage provider by each of the rental storage user (title and column 12 lines 38-48 and column 12 lines 53-59).

Wollrath does not specifically teach the service method of a rental storage comprising the steps of: providing by the storage provider an estimation of a data amount in the rental storage for future storage usage of each of said rental storage user, based on the history of storage usage of each of said rental storage user. However, this matter is taught by Mummert as providing the storage provider system the estimation of each container utilization for future storage usage based on the history of each of the storage usage (column 3 lines 26 – column 6 line 4 and Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the service method of Wollrath to include the feature of providing the rental

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storage service provider the estimation of future storage usage based on the history of each of the storage usage as taught by Mummert because this would accurately project the future utilization of the storage for preventing service outages caused by storage filled to capacity as stated by Mummert (column 2 lines 6-11 and column 4 lines 17-21).

Wollrath modified by Mummert as discussed above further teaches the storage user request rental of the storage comprising various parameters (Wollrath: column 12 line 43-45, 65-67). Wollrath modified by Mummert does not explicitly teach reporting the estimation to each of said rental storage users. It would have been obvious to one of ordinary skill in the art to allow the estimation in the teaching of Wollrath modified by Mummert to be reported to each of the rental storage users because this would allow each of the users to better determine the parameters for requesting the rental storage.

6. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by Wollrath et al., U. S. Patent 6,263,350 in view of Mummert et al., U. S. Patent 6,427,152 in further view of Shear, U. S. Patent 5,410,598.

As to claim 2, Wollrath teaches a service method of a rental storage, in which rental storage service users (*"the client"*) use the rental storage provided by a rental storage service provider (*"the server"*) on a network and each of said rental storage service users and said rental storage service provider communicate with respect to rental storage service, comprising the steps of (title and column 12 lines 38-48):

- a) making a contract between said rental storage service provider and each of said rental storage service users so as to configure contract options based on the contract of use of storage service (column 12 line 38 – column 14 line 8;

specifically, in column 12 lines 44-45 the server grants a lease to the client corresponding "a contract", in column 12 lines 45-52 the entire lease period and the portion of the lease period corresponding to "the contract options";

b) using storage of said rental storage service provider by each of the rental storage service users (column 12 lines 53-59);

c) reconfiguring said contract options by said rental storage service provider (column 13 lines 26 – column 14 line 8; *specifically, "reconfiguring said contract options" corresponding to renew the lease, cancel the lease, reject the lease, etc. in Wollrath's teaching*).

Wollrath does not specifically teach reporting the history of storage usage record and an estimated amount of data of storage usage to each of the rental storage service users from the rental storage service provider. Mummert teaches reporting the storage service provider system the history of storage usage record and the estimated amount of data utilization of storage usage for future storage usage based on the history of each of the storage usage (column 3 lines 26 – column 6 line 4 and Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the service method of Wollrath to include the feature of reporting the history of each of storage usage record and the estimated amount of data utilization as taught by Mummert because this would accurately project the future utilization of each of the storage for preventing service outages caused by storage filled to capacity as stated by Mummert (column 2 lines 6-11 and column 4 lines 17-21).

Wollrath modified by Mummert as discussed above further teaches the storage user request rental of the storage comprising various parameters (Wollrath: column 12 line 43-45, 65-67). Wollrath modified by Mummert does not explicitly teach reporting the history of storage usage record and the estimated amount of data to each of the said storage users from the rental storage service provider. It would have been obvious to one of ordinary skill in the art to allow the history of storage usage record and the estimated amount of data in the teaching of Wollrath modified by Mummert to be reported to each of the storage users from the rental storage service provider because this would allow each of the users to better determine the parameters for requesting the rental storage.

Wollrath modified by Mummert does not specifically teach reporting the charge to each of the rental storage service users by the rental storage service provider, and paying the charge for the use of said storage by the rental storage service user to the rental storage service provider. However, Shear teaches reporting the charge to each of the user by the service provider, and paying the charge for the usages used by said user to said service provider (abstract and column 15 lines 46-60 and column 16 lines 41-53 and column 22 lines 41-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the service method of Wollrath modified by Mummert to include the feature of reporting the charge to the rental storage service user by the service provider, and paying the charge for the usages used by each of said user to the service provider because this would allow the rental storage

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service provider to efficiently collect the royalties for the services have been provided to each of the users.

As to claim 3, Wollrath teaches a service method of a rental storage, in which a rental storage service user (*"the client"*) uses the rental storage provided by a rental storage service provider (*"the server"*) on a network and each of said rental storage service users and said rental storage service provider communicate with respect to rental storage service, comprising the steps of: using storage of said rental storage service provider by each of said rental storage service users; when said rental storage service provider and each of said rental storage service user make a contract and the contract options based on the contract of use of said storage specifies contracted amount of data (column 12 line 38 – column 14 line 8; *specifically, in column 12 lines 44-45 the server grants a lease to the client corresponding "a contract", in column 12 lines 45-52 the entire lease period and the portion of the lease period corresponding to "the contract options", in column 12 lines 45-48 and column 12 line 65 – column 12 line 25 the leasing period and the access parameters corresponding to "the contract amount"*).

Wollrath does not specifically teach estimating by said rental storage service provider the storage usage in the future based on the history of amount of data of storage usage by each of said rental storage service users. However, Mummert teaches estimating by the storage service provider the future storage usage based on the history of amount of data utilization of each of the storage usage (column 3 lines 26 – column 6 line 4 and Fig. 1). It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to allow the service method of Wollrath to include the feature of estimating the future storage usage based on the history of the amount of data utilization of each of storage usage because this would accurately project the future utilization of each storage for preventing service outages caused by storage filled to capacity as stated by Mummert (column 2 lines 6-11 and column 4 lines 17-21).

Wollrath does not specifically teach proposing to each of said rental storage service users a recommended contract on the amount of data according to the estimation. The limitation of proposing the amount of data according to the estimation is taught by Mummert as projecting the storage capacity, and defining actions to prevent the utilizations of reaching each of the storage capacity (column 3 lines 36-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the rental storage service method in the teaching of Wollrath modified by Mummert as discussed above to include the feature of projecting each of the storage capacity and defining the actions to prevent the utilization of reaching the storage capacity as taught by Mummert because this would allow the rental storage service provider to better predict the future capacity of the storage and to better ensure the availabilities of the storage to each of the users. Wollrath modified by Mummert does not specifically teach proposing to each of said storage service user a recommended contract on the amount of data according to the estimation. It would have been obvious to one of ordinary skill in the art to allow the feature of defining the actions to prevent the utilization of reaching the storage capacity in the teaching of Wollrath modified by Mummert to further include the feature of proposing to each of the storage user a

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recommended contract on the amount of data according to the estimation because this would allow the storage user to better determine the leasing parameters before requesting the lease from the rental storage service provider, this would also better ensure the rental storage service provider to provide the sufficient storage memory during the granted lease period.

Wollrath modified by Mummert does not specifically teach the contract and the contract options based on the contract of use of said storage specifies a charge system for the contracted amount of data according to the predetermined usage. However, Shear teaches a charge system that charging the users according to the predetermined usage (column 16 lines 41-45; *specifically, charging the users according to the predetermined usage corresponding to charging the user an annual fee or a flat fee for unlimited usage*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the contract and the contract options in the teaching of Wollrath modified by Mummert to include the feature of specifying a charge system to charge the users according to the predetermined usage because this would allow the service provider to ensure its royalties for the services that will be provided to the users according to the contract.

As to claim 4, Wollrath modified by Mummert and Shear as discussed above does not explicitly teach proposing reduction of amount of data contracted for the storage usage if the storage usage estimated is less than the currently contracted storage usage. However, Wollrath teaches the rental storage service provider and the storage user to negotiate the storage lease (column 19 lines 51-54), and Mummert

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teaches a threshold is an artificial limit that used for the storage capacity planning (column 3 lines 36-53). It would have been obvious to one of ordinary skill in the art to allow the teaching of Wollrath modified by Mummert and Shear to include the feature of proposing reduction of amount of data contracted for the storage usage if the storage usage estimated is less than the currently contracted storage usage because this would allow the rental storage service provider to better optimize the storage capacity planning.

As to claim 5, Wollrath modified by Mummert and Shear as discussed above further teaches when each of said rental storage service user updates said contract options in accordance with a desirable amount of data of storage usage recommended by said rental storage service provider, if the amount of data of storage usage by each of said rental storage service user exceeds the contracted amount of data for storage usage reconfigured within the contract period of the contract, each of said rental storage service users will be allowed using the storage service for the data beyond the contracted amount of said storage usage (see claim 3 above; Wollrath: column 13 lines 50-56 and column 15 lines 60-63; *specifically, the user exceeds the contracted amount corresponding to the insufficiency of the original lease in Mummert's teaching*).

As to claim 6, Wollrath modified by Mummert and Shear as discussed above does not explicitly teach proposing by said rental storage service provider a reduction plan of the amount of data of storage usage used by each of said rental storage service user, and reducing the amount of data of storage usage used by each of said rental storage service users in accordance with the recommended reduction plan of data,

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wherein the step of reconfiguring said contract options is performed after the proposing step and the reducing step. However, Wollrath teaches the rental storage service provider and each of the storage users to negotiate the storage lease and reconfiguring the contract options (column 13 lines 26 – column 14 line 8 and column 19 lines 51-54), and Mummert teaches a threshold is an artificial limit that used for the storage capacity planning (column 3 lines 36-53). It would have been obvious to one of ordinary skill in the art to allow the teaching of Wollrath modified by Mummert and Shear to include the feature of proposing by the rental storage service provider a reduction plan of data used by each of the storage users, and reduce the data used by each of storage users in according with the recommended reduction plan, and reconfiguring the contract options after the proposing and the reducing steps because this would allow the rental storage service provider to better optimize the storage capacity planning.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by Wollrath et al., U. S. Patent 6,263,350 in view of Mummert et al., U. S. Patent 6,427,152 and Shear, U. S. Patent 5,410,598 in further view of Kenley et al., U. S. Patent 5,276,867.

As to claim 7, Wollrath modified by Mummert and Shear teaches reducing the data used by the rental storage service user in accordance with the recommended reduction plan as discussed in claim 6 above. Wollrath modified by Mummert and Shear does not specifically teach when each of said rental storage service users deletes data in use in accordance with the recommended reduction plan of the amount of data of storage usage, said rental storage service provider duplicates on a portable

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medium a backup copy of the data specified to delete by said rental storage service user, and said rental storage service provider sends the backup copy of the data to each of the rental storage service users. However, Kenley teaches migrating the selected data from data storage to a backup storage when the quantity of data stored in the data storage exceed the threshold, providing the user the backup copy of the migrated data (column 2 lines 56-68 and column 3 lines 32-47 and column 5 lines 40-41; *specifically, in column 3 lines 40-42 the optical disk backup storage corresponding the portable medium for storing a backup copy as claimed*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the recommended reduction plan in the teaching of Wollrath modified by Mummert and Shear to include the feature of migrating the selected data in accordance with the recommended reduction plan from the rental storage to a backup storage, and providing the storage user the backup copy of the migrated data because this would allow each of the rental storage service provider to better optimize the storage capacity planning.

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Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Cheung whose telephone number is (703)-305-0084. The examiner can normally be reached on Monday – Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

The fax phone number for the organization where this application or proceedings is assigned are as follows:

(703) 872-9306 (Official Communications; including After Final
Communications labeled "BOX AF")

(703) 746-5619 (Draft Communications)

Hand delivered responses should be brought to Crystal Plaza Two, Room 1B03.

Mary Cheung
Patent Examiner
Art Unit 3621
December 7, 2004

